

## Tzhone, Stephen

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**From:** Moix, Mark [MOIX@adeq.state.ar.us]  
**Sent:** Monday, July 08, 2013 4:25 PM  
**To:** Tzhone, Stephen  
**Subject:** RE: CSM question from ADEQ, RE: Arkwood CSM call and Extension request - Dioxin Reassessment

Thanks Stephen.....

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**From:** Tzhone, Stephen [<mailto:tzhone.stephen@epa.gov>]  
**Sent:** Monday, July 08, 2013 3:22 PM  
**To:** Moix, Mark  
**Subject:** RE: CSM question from ADEQ, RE: Arkwood CSM call and Extension request - Dioxin Reassessment

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**From:** Khoury, Ghassan  
**Sent:** Monday, July 08, 2013 3:11 PM  
**To:** Tzhone, Stephen; Rauscher, Jon  
**Subject:** RE: CSM question from ADEQ, RE: Arkwood CSM call and Extension request - Dioxin Reassessment

A conceptual site model is a schematic diagram identifying the primary contamination sources and the potential exposure pathways (e.g., ingestion of contaminated water, inhalation of chemicals in air) by which different types of human populations (e.g., resident, workers, recreational visitors) might come into contact with contaminated media. This conceptual model is used to plan the human health risk assessment and associated data collection activities.

The endangerment assessment is not a conceptual site model but I think it can be used to develop the original conceptual site model such as identifying the primary and secondary contamination sources and the potential fate and transport mechanisms of contaminants of concern such as surface water runoff to offsite locations or leaching of contaminants into ground water etc. and then identifying potential current and future receptors.

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**From:** Tzhone, Stephen  
**Sent:** Monday, July 01, 2013 8:53 AM  
**To:** Rauscher, Jon; Khoury, Ghassan  
**Subject:** CSM question from ADEQ, RE: Arkwood CSM call and Extension request - Dioxin Reassessment

Hi Jon, Ghassan: question from ADEQ.

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**From:** Moix, Mark [<mailto:MOIX@adeq.state.ar.us>]  
**Sent:** Thursday, June 27, 2013 11:57 AM  
**To:** Tzhone, Stephen  
**Subject:** RE: Arkwood CSM call and Extension request - Dioxin Reassessment

Stephen,

FYI, the following ADEQ HWD project team members are available for the Tuesday July 9 phone call.....

Doug Ritchie, Risk Assessor  
Dianna Kilburn, Geologist Supervisor

Grant Kneebone, Geologist  
Charles Johnson, Geologist  
Annette Cusher, Engineer Supervisor  
Mark Moix, Engineer  
Jay Rich, Branch Manager (tentative)

I think the document "1989-08-30 Arkwood Endangerment Assessment.pdf" contains what would be considered the initial conceptual site model. I scanned through it briefly and didn't see that particular term, but it looks like a risk assessment that includes exposure pathways and points of exposure. Among the chemical constituents assessed were dioxins and furans. **Would you be able to verify with Ghassan & Jon that this is definitely the initial CSM?**

Also, could you send me a pdf of the EPA letter requesting McKesson to update the CSM? That way I can keep our records currently up to date.

Thanks,  
Mark